

Claims

1. A platelet-shaped pigment comprising a layer obtained by calcining $\text{TiO}_2/\text{SiO}_y$, wherein $0.03 \leq y \leq 1.95$, especially $0.03 \leq y \leq 1.8$, more especially $0.70 \leq y \leq 1.8$, or $\text{TiO}_2/\text{metal}$, especially Ti, Zr, Cr, or Zn, more especially Al in a non-oxidising atmosphere.
2. A pigment according to claim 1, comprising
- (a) a substrate layer of SiO_z , wherein $0.03 \leq z \leq 2.0$, especially $0.10 \leq z \leq 2.0$, more especially $0.70 \leq z \leq 2.0$,
- (b) an intermediate layer obtained by calcining $\text{TiO}_2/\text{SiO}_y$, wherein $0.03 \leq y \leq 1.8$, in a non-oxidising atmosphere, and
- (c) a TiO_2 layer.
3. A pigment according to claim 1, comprising
- (a) a substrate layer of Al,
- (b) an intermediate layer obtained by calcining TiO_2/Al in a non-oxidising atmosphere, and
- (c) a TiO_2 layer.
4. A pigment according to claim 1, comprising
- (a) a multi-layered platelet-shaped substrate layer having a core of SiO_{x1} that has a SiO_{x2} layer, or a SiO_{y1} layer on the lower and upper surfaces, but not on the side faces, a multi-layered platelet-shaped substrate layer having a core of SiO_{x2} that has a SiO_{x1} layer, or SiO_{y1} layer on the lower and upper surfaces, but not on the side faces, a multi-layered platelet-shaped substrate layer having a core of SiO_{y1} that has a SiO_{x1} layer, or SiO_{x2} layer on the lower and upper surfaces, but not on the side faces, or a multi-layered platelet-shaped substrate layer having a core of a metal, especially Al, that has a SiO_{x1} layer, a SiO_{x2} layer, or a SiO_{y1} layer on the lower and upper surfaces, but not on the side faces,
- (b) an intermediate layer obtained by calcining $\text{TiO}_2/\text{SiO}_{x1}$, $\text{TiO}_2/\text{SiO}_{x2}$, or $\text{TiO}_2/\text{SiO}_{y1}$ in a non-oxidising atmosphere and
- (c) a TiO_2 layer, wherein $0.03 \leq x1 < 0.70$, especially $0.05 \leq x1 \leq 0.50$, very especially $0.10 \leq x1 \leq 0.30$, $0.70 \leq x2 \leq 0.99$, and $1.00 \leq y1 \leq 1.95$, especially $1.0 \leq y1 \leq 1.8$, very especially $1.1 \leq y1 \leq 1.8$.

5. A pigment according to claim 2, wherein the substrate layer has a thickness of from 20 to 1000 nm, preferably from 50 to 500 nm.
6. A pigment according to either claim 2 or 5, wherein the intermediate layer has a thickness of from 1 to 500 nm, preferably from 10 to 50 nm.
7. A pigment according to any one of claims 2, 5 and 6, wherein the TiO_2 layer has a thickness of from 1 to 200 nm, especially 10 to 100 nm, more especially from 20 to 50 nm.
8. A process for the production of a pigment according to claim 1, wherein
(a) TiO_2 -coated SiO_y platelets, wherein $0.03 \leq y \leq 1.95$, especially $0.03 \leq y \leq 1.8$, more especially $0.70 \leq y \leq 1.8$, or TiO_2 -coated metal platelets, especially Al platelets are calcined in a non-oxidising gas atmosphere at a temperature of more than 600°C and
(b) the TiO_2 -coated SiO_y platelets are optionally treated at a temperature of more than 200°C , preferably more than 400°C and especially from 500 to 1000°C , with air or another oxygen-containing gas.
9. A pigment obtainable by the process according to claim 8.
10. Use of a pigment according to any one of claims 1 to 7, or 9 alone or in combination with commercially customary pigments in paints, textiles, ink-jet printing, cosmetics, coatings, printing inks, plastics, in glazes for ceramics and glass, and in security printing.
11. A cosmetic preparation, colorant, coating, printing ink, plastics, or glaze for ceramics and glass, comprising a pigment according to any one of claims 1 to 7, or 9.